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Calumet Region

FUNDAMENT VEGETATION OF THE CALUMET REGION, NORTHWEST INDIANA–NORTHEAST ILLINOIS

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CALUMET REGION is the name commonly given to the area about the head of Lake Michigan. Physiographically, it is identified with the drainage basins of the Little Calumet and the Grand Calumet rivers. Industrially and commercially, it is intimately associated with metropolitan Chicago, and the area as here demarcated coincides approximately with the area south and east of Chicago in which commuter service is common.

Owing to its having the strategic qualities of site and situation expressed and implied in this statement of identification, "The Calumet" has become the subject of widespread interest and investigation. As would be expected, much of the published literature on the Calumet area deals with the history of its settlement and its phenomenal industrial and commercial development. Such literature, however, seems significantly deficient in descriptions of the elements of the geographic landscape with which the historic events must be associated in order to form an adequate concept of the historical development of the region. Natural vegetation is one of the basic elements to which we must give consideration. It is the purpose of this paper to supply a picture of what the fundament vegetation looked like at the time when the white man started to dispossess the Pottawatomie Indian (Fig. 1). It is not proposed here to evaluate the data in relation to human occupance or events, except incidentally.

For the portrayal of the vegetation landscape, recourse must be had to the original survey records. Unfortunately, the surveyors' township plats do not adequately indicate continuity of lines and clearness or completeness of symbolism to produce accurately demarcated vegetation areas. The surveyors' field notes (e.g. "Leave timber and enter prairie") prove of some assistance here. Such data were transferred from forty-seven

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individual plat units to a specially prepared township base map. The kinds and sizes of trees observed by the surveyor along section lines and recorded in separate field notebooks were also regularly entered along every third north-south section line of our base map and along most of the east-west township lines. Such transects are considered generally adequate for purposes of areal integration. The sectional tree inventory is far too detailed to be reproduced legibly on a map of a scale here used, but on the writer's original work sheet it served a number of highly useful functions in directing the writing of this text and the drafting of the map.

The vegetation data derived from the plat maps and notes of the original Federal land survey have been reduced by the writer to six classifications comprising three forest types and three grassland types: broadleaved forests, mixed broadleaved and coniferous forests, and swamps; prairies, wet prairies, and marshes. The regional distribution of these forms is indicated on a present-day political base map for purposes of orientation.

BROADLEAVED FOREST

The broadleaved forests are dominated by various kinds of oak—white, yellow, black, red, bur, pin, and white swamp oak. Very common also are lynn (linden), white ash, black ash, hickory, soft maple, sugar maple, elm, beach, birch, aspen, cottonwood, and sassafras. Other recurring species include cherry, butternut, walnut, ironwood, black gum, and sycamore.

MIXED BROADLEAVED AND CONIFEROUS FOREST

In the mixed broadleaved and coniferous stand (north of dotted line on the map), jack pine, common juniper, white pine, arbor vitae, and tamarack are the chief conifers. The hardwoods are mostly of a scrubby type of black oak, white oak, yellow oak, and pin oak. This mixed hard-soft timber consociation is not areally differentiated by the surveyor, wherefore the dotted line drawn on the map represents only a general zonal boundary based on the detailed field inventory as well as we could determine it.

This forest belt is limited almost entirely to the modern and ancient beaches, following the Lake Michigan shore in a strip whose width varies from a fraction of one mile at the Indiana-Illinois state line to about four

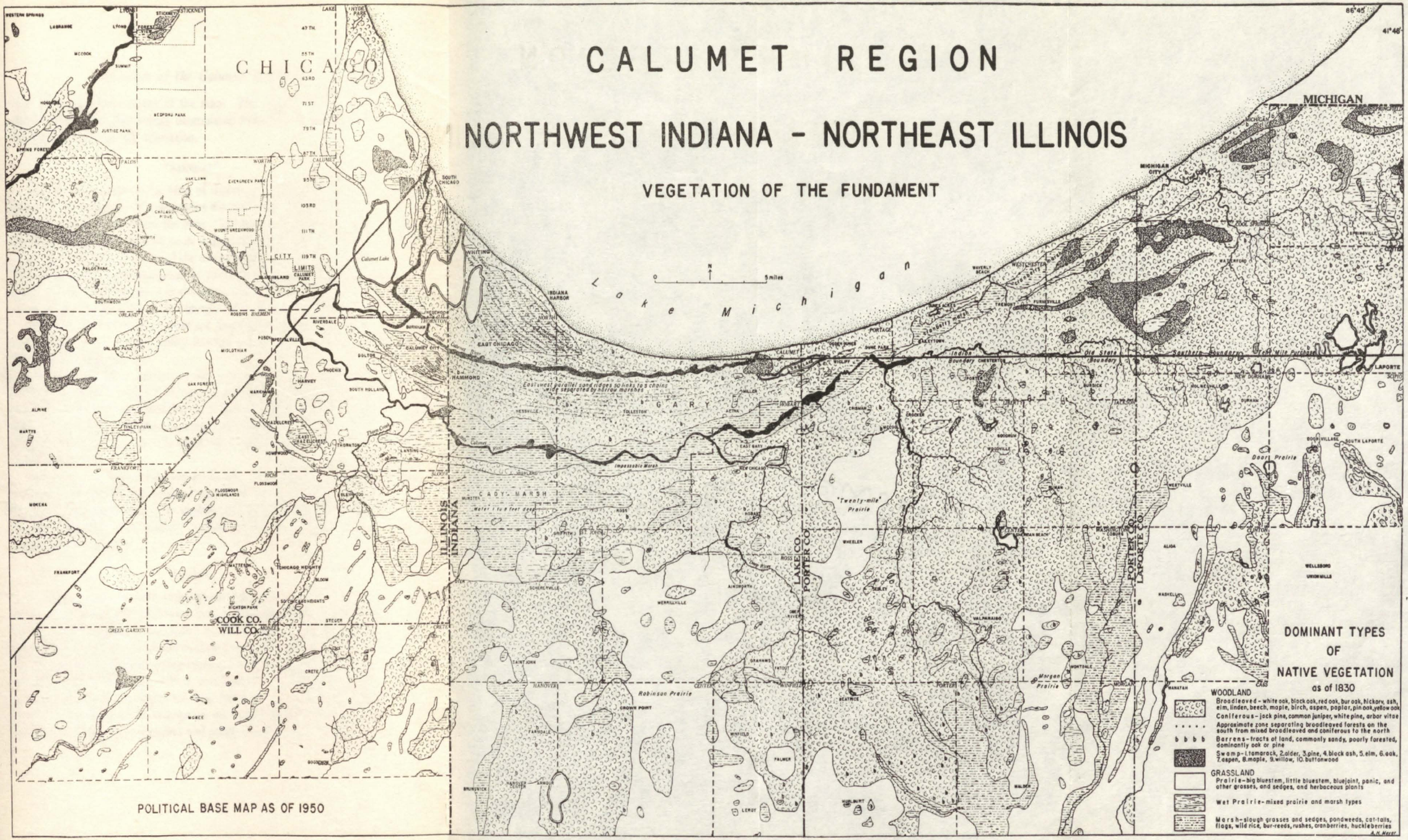
CALUMET REGION
NORTHWEST INDIANA - NORTHEAST ILLINOIS
VEGETATION OF THE FUNDAMENT
CHICAGO
MICHIGAN
Lake Michigan
ILLINOIS
INDIANA
COOK CO.
WILL CO.
LAKE CO.
PORTER CO.
LAPORTE CO.
GARY
CADY MARSH
Impassable Marsh
"Twenty-mile" Prairie
Robinson Prairie
Morgan Prairie
Door Prairie
Eastwest parallel sand ridges 20 links to 5 chains wide separated by narrow marshes
Water 1 to 3 feet deep
DOMINANT TYPES OF NATIVE VEGETATION as of 1830
WOODLAND
Broadleaved - white oak, black oak, red oak, bur oak, hickory, ash, elm, linden, beech, maple, birch, aspen, poplar, pin oak, yellow oak
Coniferous - jack pine, common juniper, white pine, arbor vitae
Approximate zone separating broadleaved forests on the south from mixed broadleaved and coniferous to the north
Barrens - tracts of land, commonly sandy, poorly forested, dominantly oak or pine
Swamp - 1.tamarack, 2.alder, 3.pine, 4.black ash, 5.elm, 6.oak, 7.aspen, 8.maple, 9.willow, 10.buttonwood
GRASSLAND
Prairie - big bluestem, little bluestem, bluejoint, panic, and other grasses, and sedges, and herbaceous plants
Wet Prairie - mixed prairie and marsh types
Marsh - slough grasses and sedges, pondweeds, cat-tails, flags, wild rice, bur-reeds, rushes, cranberries, huckleberries
POLITICAL BASE MAP AS OF 1950

FIG. 1. This map shows the natural vegetation pattern of the Calumet before the landscape was transformed by the white man. The design is based upon unpublished data from forty-seven plats and upon numerous detailed field notes of the original Federal land survey of the area, made from 1829 to 1834. The hydrographic features are also of this period

miles in the northeast corner of the map. The sandy soils with their edaphic dryness are the primary determining factors for the existence of the conifer and scrub oak vegetation.

"BARRENS"

The so-called "barrens," a form of timber, are denoted on the map simply by the letter *b*. The surveyors did not areally delimit this type of timber, nor did they define the term. The land-management office of the Department of the Interior could find no official legend or statement explaining the term. Because of the unavailability of such information, the lack of complete transcription of sectional line data as previously noted, and the varied types of environment with which the term is associated, definite delineation of the "barrens" does not seem feasible.

Webster's *International Unabridged Dictionary* (1945) defines barrens as "level tracts of land, poorly forested and commonly having light sandy soil; as, pine *barrens*."

But mapping the occurrence of this term brings out the interesting fact that the barrens need not be "level"; as a matter of fact, most commonly here they are not identified with level terrain. The descriptive terms "rough barren," "broken barrens," and "rolling barrens" have been noted in the proportions of 7, 5, and 8 times as compared to 5 times for "level barrens."

In terms of vegetation the surveyors note "oak barrens," "hickory barrens," "oak and hickory barrens," and "pine barrens." A thin stocking of trees generally seems to be implied; and frequently adjectives like "bushy," "brushy," and "scrubby" emphasize the generally low quality of merchantable timber.

SWAMPS

Tree vegetation in partly water-covered areas is not always denoted as swamps to distinguish such areas from marsh areas with their characteristic herb vegetation. A number of them, however, are so distinguished and frequently are named by their chief types of vegetation. The most commonly recognized swamp types are tamarack, alder, pine, black ash, elm, oak, maple, aspen, willow, and buttonbush. These are designated by number on the vegetation map (see particularly the northeastern part of the area). The swamps are typically associated with depressions and stagnant river meanders and poorly drained river channels.

MARSHES

As the map indicates, marsh vegetation is much more extensive than swamp vegetation. Marshes are fairly well delineated in the original Federal survey plats, except (as mentioned above) that a clear distinction is not usually made between them and some of the swamps. Vegetation types of the marshes are seldom mentioned by the surveyors, but cranberry is significantly identified with a number of the more important marshes (see Westchester and Pine townships). From other early marsh landscape descriptions we learn that slough grasses and sedges, pondweeds, wild rice, cat-tails, flags, bur-reeds, blueberries, and huckleberries were among the most common marsh types of vegetation.

The three deepest, most extensive marshes are the Cady Marsh north of Dyer, the linear marsh flanking the "Little Calumet River," and the swamp and sandy-ridge-interrupted marsh embraced by the modern sites of East Chicago, Indiana Harbor, and Whiting.

It is obvious that the geographic distribution of these marshes, together with those of the swamps and wet prairies, must be recognized and analyzed by anyone attempting to describe and explain the patterns of circulation and settlement of the aboriginal and succeeding stages of human occupance. It would be interesting to know, for example, to what degree the extensive and impassable marshes and swamps handicapped the earlier traveler and the settler.

WET PRAIRIES

"Wet prairies" are frequently noted by the early surveyors, apparently to designate areas possible to travel over during average weather conditions although much too wet to be cultivated. Since such survey notes are restricted to limited observation along section lines—and even then not consistently recorded—it is difficult to express accurately on a map in contiguous form all such areas, or even a part of them. Such areas as the writer has outlined would seem at least to express approximate spatial relations of these poorly drained areas to the real water-covered marshes and swamps. Extensive wet prairie areas are readily recognized in the Cook County townships of Hyde Park, Thornton, and Bloom, and in other sections.

PRAIRIES

Among the surveyors' records of dry prairie areas west of the townships just mentioned (embraced mostly in the contiguous parts of Lake,

Stickney, Lyons, Worth, and Bremen townships) the following survey notations are indicated: "level rich prairie," high and dry," "level and elevated," "dry sandy," "high, level, and dry good soil." Reference to a modern contour map reveals that these dry prairies are elevated from one to two ten-foot contours above the wet prairies.

The dry and wet prairies are recognized as part of the great "Grand Prairie" which extends from Vincennes in Indiana northward to the Wisconsin line. Only occasional groves of trees interrupted the "savanna" or "pampa" landscapes as characterized by early local observers.

Prairies separated by such groves often came to be recognized as distinctive settlement units by the first white settlers, as, for example, the Twenty-Mile Prairie in Portage and Union townships, the Morgan Prairie in Morgan and Washington townships, the Robinson Prairie in Center and Ross townships, and Door (Dor Min) Prairie in New Durham and Scipio townships.

THE PRAIRIE COVER

Prairie grasses were not described in the original survey, but from other sources we learn some of their identities. According to one record, "The dark, rich, well drained Prairie soils were thickly covered with Indian grass, bluejoint turkeyfoot (big bluestem), prairie beard grass (little bluestem), bluejoint, and numerous patches of wild flowers."[1] It is further observed that "To relieve the eye, and add a pleasing variation to these plains of grass, little groves nestled here and there on the bosom of the prairie, that on a bright spring morning resembled islands of blue in a sea of green. . . . [They] were generally located on the side of a pond, or had springs of water in them; sometimes a pleasant stream of water ran through them."[2] It is such spots that particularly favored Indian encampments and pioneer settlements, as is indicated in the first settlements in the east, in the La Porte ("the door") vicinity. The door effect consisted of "a natural opening through the timber from one prairie to the other, where 'Door Village' now stands."[3] The Indian village of Ish-Kwan-dem (in the vicinity of modern Westville) occupied a similar position, and the name is said to connote "the door" situation.[4]

[1] Ulrich, H. P., and Others, *Soil Survey, La Porte County, Indiana* (1934), No. 26, p. 8. U. S. Dept. of Agriculture, Washington, D.C., 1944.

[2] *Ibid.*, pp. 101–102.

[3] *Illustrated Historical Atlas of La Porte County, Indiana,* p. 3. Chicago: Higgins, Belden, and Co., 1874.

[4] Knotts, A. F., "Indian Trails, Mounds and Village Sites of La Porte County, Indiana" (typewritten manuscript), 1932, p. 8.

The vista of the tall grass prairies indeed must have been impressive! Barce's observations are interesting: "Nothing could be more delightful than the open prairie in the spring and summer. Stirred by the fresh morning breezes, the billowing grasses stretched as far as the eyes could see, while a profusion of wild flowers filled the air with fragrance and added hues of violet and purple to a background of green."[5]

But once the grasses and flowers had dried in late summer or autumn, the same landscape often presented a terrifying scene. "The savage, that rue child of nature, speaking the language his great mother had taught him, called the prairie 'Mas-Ko-Tia,' or 'The Place of the Fire.' The name was appropriate, for there giant conflagrations, feeding on the tall, dry grass of the autumn savannas, and fanned into a fiery hurricane by the western winds, at night time illuminated the whole heavens, and sweeping onward with the speed of the wild horse, left nothing behind them but the blackened and smoking plains."[6]

Prairie fires have often been held responsible for the total absence or the limited occurrence of forests in the humid prairie country, such as we have in the western Calumet area. Terrifying as these fires were to the Indian and the first settlers, it is claimed that they did improve foraging conditions for both wild and domesticated grazing animals, and also extended the acreage and quality of wild and cultivated plant foods, such as cranberries and blueberries, corn and other grains.

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[5] Barce, Elmore, *The Land of Potawatomi*, p. 100. Privately published, Fowler, Indiana, 1919. [6] *Ibid.*, p. 95.